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2 Rec'd PCT/PTO 2 2 JAN 2001

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Patent claims

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A method for the computer-aided elimination of least one inconsistency in a database collection containing a database and at least one copy database of the \database, which inconsistency arises on account of the database and/or the copy database being changed,

- in which at least some of the operations which create an inconsistency are allocated to defined conflict types,
- in which each conflict type is allocated a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by at least one operation of the respective conflict type,
- in which the inconsistency is eliminated using the decision set.
- 2. The method as claimed in claim 1, in which a plural ty of inconsistencies are eliminated.
- 20 The method as claimed in claim 1 or 2, in which each conflict type is allocated a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by a plurality of operations of the respective conflict 25 type.
  - 4. The method as claimed in one of claims 1 to 3, in which the database collection contains a plurality of copy databases of the database.
- The method as claimed in one of claims 1 to 4, 30 in which all the inconsistencies and their dependencies Xane another are \ ascertained before incohsistencies are eliminated.
  - The method as claimed in one of claims 1 to 5, in which a conflict, an anomaly or a pseudo-anomaly is ascertained when an inconsistency is ascertained.
    - 7. The method as claimed in one of claims 1 to 6, in which, during elimination of the inconsistencies, the decision tet for at least one conflict type is modified depending on the dependencies of the

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AMENDED PAGE

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inconsistencies.

- 8. The method as claimed in one of claims 1 to 7, in which, after a prescribable number of eliminated inconsistencies, the database collection is examined for further inconsistencies and their dependencies, anomalies and pseudo-anomalies.
- 9. The method as claimed in one of claims 1 to 8, in which the database collection contains an object-oriented database.
- 10 10. The method as claimed in one of claims 1 to 9, used within the context of object-oriented software development.
  - 11. The method as claimed in one of claims 1 to 9, used within the context of creating a structured electronic document.
  - 12. An arrangement for eliminating at least one inconsistency in a database collection containing a database and at least one copy database of the database, which inconsistency arises on account of the
- 20 database and/or the copy database being changed,
  having at least one processor which is set up such that
  the following steps can be carried out:
  - a) at least some of the operations which create an inconsistency are allocated to defined conflict types,
  - b) each conflict type is allocated a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created by at least one operation of the respective conflict type,
  - c) the inconsistency is eliminated using the decision set.
- 13. The arrangement as claimed in claim 12, in which the processor is set up such that a plurality of inconsistencies are eliminated.
  - 14. The arrangement as claimed in claim 12 or 13, in which the processor is set up such that each conflict type is allocated a decision set which is used to indicate possible decisions which can be used to

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eliminate an inconsistency created by a plurality of operations of the respective conflict type.

- The arrangement as claimed in one of claims 12 15. to 14,
- in which the processor is set up such that the database collection\contains a plurality of copy databases of the database.
  - The arrangement as claimed in one of claims 12 or\15,
- 10 in which the processor is set up such that all the inconsistencies and their dependencies on one another ascertained before the inconsistencies can be eliminated
  - The arrangement as claimed in one of claims 12
- 15 to 16, in which the processor is set up such that a conflict, an anomaly or a pseudo-anomaly can be ascertained when an inconsistency is ascertalined.
- 18. The arrangement as Alaimed in one of claims 12 to 17, 20
  - in which the processor is sat up such that, during elimination of the inconsistencies, the decision set  $\mathbf{Y}$ least one conflict t $\mathbf{y}$ pe can be modified depending on the dependencies of the inconsistencies.
- 25 The arrangement as claimed in one of claims 12 to 18,
  - in which the processor is set up such that, after a prescribable number of eliminated inconsistencies, the examined collection is for
- inconsistencies and their dependencies, anomalies and 30 pseudo-anomalies.
  - 20. The arrangement as claimed in one of claims 12
- in which the processor is set up such that the \database 35 collection contains an object-oriented database.
  - 21. The arrangement as claimed in one of claims 12
    - used within the context of object-oriented software development.

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The arrangement as claimed in one of claims 12 22. to 21,

used within the context of creating a structured electronic document.

- 5 23. A set of a plurality of arrangements eliminating at least one inconsistency in a database collection containing a database and at least one copy database  $\delta f$  the database, which inconsistency arises on account of the database and/or the copy database being 10
- changed, in which each arrangement has at least one processor which is set up such that the following steps can be carried out:
- at least some\ of the operations which create an 15 inconsistency are allocated to defined conflict types,
  - each conflict type is allocated a decision set which is used to indicate possible decisions which can be used to eliminate an inconsistency created least one operation of the respective conflict type,
  - c) the inconsistency is eliminated using the decision set, and

in which the arrangements can be coupled to one 25 another.

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